

Remarks

Claims 3, 13, 28, 31 and 32 have been amended, with Claim 32 now presented in independent form. New Claims 35-43 have been added. Accompanying this communication is a petition to extend the prosecution on this matter for 1 month and the appropriate fee.

Drawing Objection

The Examiner contends that Claim 32 is not illustrated in the drawings. Such is based on a misunderstanding of that Claim. The Claim does not state that there is identical lengths for each “of the sample well, waste well, cathode, and anode” as stated by the Examiner. Claim 32 states that the lengths of each of the “functional identical channels” of the array (not a single unit) “has the same length from said injection point to said sample well, to said waste well, to said cathode, and to said anode.” Nothing in this claim states that each of these lengths are the same, as stated by the Examiner. To further clarify this terminology, Claim 32 has been amended. Thus, this objection to the drawings should be withdrawn.

Proposed Drawing Corrections

The Examiner states that the “two figures labeled “Figure 1” were not corrected by the prior proposed drawing correction to indicate Figure 1A and Figure 1B. Applicant’s copy of that proposed drawing correction shows such a change. Regarding Figure 3, the multiple mirror image flow paths are now correctly indicated in red ink, wherein the previous proposed changes incorrectly indicated numerals for the sample wells as 1-8, while such are indicated correctly as 13. The Cross or T (injection points) are correctly indicated at 10, as seen in red ink in the photocopy of Figure 3. The drawing changes are submitted under separate cover entitled Proposed Drawing Changes and upon approval, formal drawings will be submitted including the changes indicated in red ink.

Claim Objections

The objections to Claims 13, 28, 31 and 32 have been overcome by the amendments thereto.

The 35 USC 112 Rejection

Claims 3, 29, and 32 are rejected under 35 USC 112, second paragraph, as being indefinite. Claims 3 and 32 have been amended. With respect to claim 29, Applicant submits that the claim defines the patentable subject matter (i.e., The microchannel Cross load array of claim 1, wherein said array of functionally identical channels comprises at least one pair of functionally identical channels) with a reasonable degree of particularity and distinctness and therefore requests the withdrawal of the rejection.

Under MPEP §2173.02,

“The examiner’s focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available...he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of the terms should be permitted even though the claim language is not as precise as the examiner might desire.”

Applicant respectfully submits that claim 29 meets the threshold requirements as directed by MPEP §2173.02. Specifically, the last element of claim 1 states “ an array of functionally identical channels...” Claim 29 has the added

limitation, "wherein said array of functionally identical channels comprises at least one pair of functionally identical channels." That is, the cross load array itself could comprise one pair of functionally identical channels or the cross load array could have more than one pair of functionally identical channels. Therefore, claim 29 has not been amended. Thus, the rejection for claims 3, 29 and 32 are deemed improper and are requested to be withdrawn.

The 35 USC 103 Rejections

Claims 1-5, 9-13, 15, 18, 19, 29-31, 33, and 34 are rejected under 35 USC 103(a) as unpatentable over Simpson et al. Claim 1 sets forth that the "injection point" is "connected directly to only one " sample well, "connected directly to only one" waste well, and "connected directly" to said cathode and to said anode. Simpson et al in both Figure 1 and Figure 2 teaches a waste well D connected to a plurality of sample wells B and C. The Examiner contends that it would be obvious to reconstruct the Simpson et al system so that the injection point is connected to only one sample well. Applicant respectfully submits that the rejection fails under the obviousness test because only through impermissible hindsight would motivation be found to reconstruct Simpson et al to arrive at Applicant's claimed invention.

Under MPEP §2142: "the tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art."

Applicant respectfully submits that this is but a case of hindsight reconstruction of the Simpson et al system based solely on Applicant's disclosure. Simpson et al, as stated by the Examiner, teaches a waste well D connected to a plurality of sample wells, not "one" sample well, "connected directly to only one" waste well, as

part of the limitation stated in Applicant's claim 1. Accordingly, the Examiner is called upon to explain how the proposed reconstruction of Simpson et al could be carried out without rendering the Simpson et al system inoperable for its intended operation.

Claims 6-8 are rejected under 35 USC 103(a) as being unpatentable over Simpson et al in view of Zanzucchi et al. These claims depend from Claim 1, and as pointed out above, Simpson et al fails to teach or suggest the features of the parent claim. Zanzucchi et al is cited to teach "square" holes. However, this reference does not teach or suggest the features lacking in Simpson et al as pointed out above. Thus, these references fail to support a rejection of these claims under 35 USC 103. Thus, the rejection should be withdrawn.

Allowable Subject Matter

Claims 14, 16, 17, 20-28, and 32 contain allowable subject matter. Claims 14, 16 & 17 depend from Claim 1, and it is submitted that Claim 1 is allowable over the applied art and thus these claims have not been rewritten independently. Claim 32 has been rewritten in independent form.

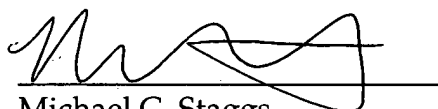
New Claims 35-43 contain subject matter similar to that of the allowed claims, with Claims 36-37 directed to Applicant's Figure 4, and Claims 38 and 39 directed to Applicant's Figure 3. Claim 40 depends from allowed Claim 32. Claims 41-43 include features indicated as being allowable.

Conclusion

In view of the amendments to the claims and the foregoing comments, each objection and rejection is believed overcome. Thus, the objections to the drawings are believed overcome. Thus, this application is deemed to be in condition for allowance based on Claims 1-43.

Respectfully submitted,

Dated: 4/24/03



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Enclosures:

Proposed Drawing Changes with Photocopies of Figures 1-3

Petition and Fee for Extension of Time

Power of Attorney By Assignee of Entire Interest (Revocation of Prior Powers)

Fee Authorization for Amendments with additional claims (in duplicate)